

ENGINEERING TECHNICIAN I

DEFINITION

To perform routine technical and paraprofessional engineering support work in the field or office; provide support to engineering project managers in the planning, design and construction management of assigned projects; provide information to general public; and perform related duties as assigned.

DISTINGUISHING CHARACTERISTICS

This is the entry-level class in the Engineering Technician series. The Engineering Technician I class is distinguished from the II level by the performance of less than the full range of duties assigned to the II level. Incumbent works under immediate supervision while learning job tasks, progressing to general supervision as procedures and processes of assigned area of responsibility are learned.

SUPERVISION RECEIVED AND EXERCISED

Receives immediate supervision from assigned supervisor.

ESSENTIAL FUNCTIONS – Functions may include, but are not limited to, the following:

Provide routine assistance with civil, assessment, and traffic engineering research and/or questions.

Assist in review of assessment district contracts and audits invoices submitted for payment.

Assist in the preparation of request for proposals; maintains and updates various databases.

Assist in investigation of engineering problems; investigates citizen complaints.

Provide information to the public.

Assist in completing field and office tasks associated with data collection, traffic surveys, boundary surveys, horizontal and vertical control surveys (both GPS and Conventional), photogrammetric surveys, and construction staking; occasionally operates surveying equipment.

Conduct minor office research and calculations related to fieldwork; reports problems encountered in the field.

Build and maintain positive working relationships with co-workers, other City employees and the public using principles of good customer service.

Perform related duties as assigned.

MINIMUM QUALIFICATIONS

Knowledge of:

Basic principles and practices of civil engineering.

Standards, standard drafting symbols, methods, practices, techniques, and instruments used in engineering and mapping.

Basic mathematics covering geometry, trigonometry, and algebra.

Applicable federal , state and local laws, codes, and regulations.

Operational characteristics of standard engineering equipment.

English usage, spelling, grammar, and punctuation.

Computer equipment and software applications related to assignment

Perform minor field calculations and making routine surveying decisions.

English usage, spelling, grammar, and punctuation.

Computer equipment and software applications related to assignment

Ability to:

Learn city engineering policies and procedures related to the construction, design and maintenance of municipal systems and facilities.

Use computer aided drafting and design systems, databases, GIS systems and other programs related to engineering design.

Learn and interpret and prepare legal descriptions, engineering reports and maps.

Learn to review plans and documents for conformance with regulations.

Communicate clearly and concisely, both orally and in writing.

Establish and maintain effective working relationships with those contacted in the course of work.

Work with various cultural and ethnic groups in a tactful and effective manner.

Experience and Training

Any combination of education and/or experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Experience:

One year of responsible experience in field survey, drafting, or related civil engineering work.

Training:

Equivalent to completion of the twelfth grade supplemented by college courses in engineering, mathematics, drafting, surveying, computer science/CADD or related field.

License or Certificate

Possession of a valid California driver's license.

PHYSICAL DEMANDS

On a continuous basis walk, stand, bend, crouch, or stoop, sit for varying periods of time; must possess sufficient strength, stamina, agility, and dexterity to manipulate, operate, lift and carry objects, tools, and materials or equipment for field inspections, materials testing, surveying, and office work. Must possess ability to: read and write reports, correspondence, and instructions; verbally communicate in person, over a radio, a telephone conversations; see in the normal vision range with or without correction; hear in the normal range with or without correction.

WORKING ENVIRONMENT

Work is performed both outdoors and indoors; the performance of fieldwork tasks requires exposure to a variety of traffic and weather conditions with possible exposure to hazardous materials; indoors work is performed in a carpeted and air-conditioned office environment with fluorescent lighting and moderate noise level. May operate equipment, tools, vehicles under daylight and evening conditions. Work is frequently disrupted by the need to respond to in-person and telephone inquiries

